

CLAIMS

What is claimed is:

1. A system for transferring information, said system comprising:
 - 5 a source device for encoding an encryption mode identifier (EMI) code into an information packet and for transmitting said information packet over a communication interface, said source device comprising:
 - a first encryption circuit for encrypting data of said information packet provided said EMI code indicates a first mode; and
 - 10 a second encryption circuit for encrypting said data of said information packet provided said EMI code indicates a second mode; and
 - a sink device for receiving said information packet from said communication interface, said sink device comprising:
 - an extractor circuit for extracting said EMI code from said
 - 15 information packet; and
 - a second decryption circuit for decrypting said data of said information packet in response to said extractor circuit indicating that said EMI code is of said second mode; and
 - 20 wherein said first mode is a copy prohibition mode indicating that said information packet is not to be reproduced by said sink device and wherein said second mode is a copy once inhibition mode indicating that said information packet is not to be reproduced more than once by said sink device.
2. A system as described in Claim 1 wherein said sink device is a bit
- 25 stream recording device and wherein said sink device further comprises a recording media for recording said information packet provided said EMI code is of said second mode and wherein said EMI code of said information packet is

altered to said first mode by said sink device upon recording onto said recording media.

3. A system as described in Claim 1 wherein said sink device further
5 comprises a first decryption circuit for decrypting said data of said information packet in response to said extractor circuit indicating that said EMI code is of said first mode.

4. A system as described in Claim 3 wherein said communication
10 interface is a serial communication interface conforming to the IEEE 1394 communication standard and wherein said information packet is a digital information packet.

5. A system as described in Claim 3 wherein said source device is a
15 broadcast receiver device and further comprises a receiver circuit for receiving an information packet encoded with CCI information and for extracting a copy protection code therefrom and wherein said sink device is unable to process an information packet encoded with CCI information.

20 6. A system as described in Claim 3 wherein said information packet represents a portion of a digital audio/visual program.

7. A system as described in Claim 3 wherein said first encryption
25 circuit, said second encryption circuit, said first decryption circuit and said second decryption circuit are coupled to receive a same cipher key.

8. A system for transferring information, said system comprising:

a source device for encoding an encryption mode identifier (EMI) code into an information packet and for transmitting said information packet over a communication interface, said source device comprising:

5 a common encryption circuit for encrypting data of said information packet based on a first key if said EMI code indicates a first mode, and wherein said common encryption circuit is also for encrypting data of said information packet based on a second key if said EMI code indicates a second mode; and

10 a sink device for receiving said information packet from said communication interface, said sink device comprising:

an extractor circuit for extracting said EMI code from said information packet; and

15 a common decryption circuit is for decrypting said data of said information packet using said second key in response to said extractor circuit indicating that said EMI code is of said second mode; and wherein said first mode is a copy prohibition mode indicating that said information packet is not to be reproduced by said sink device and wherein said second mode is a copy once inhibition mode indicating that said information packet is not to be reproduced more than once by said sink device.

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9. A system as described in Claim 8 wherein said sink device is a bit stream recording device and wherein said sink device further comprises a recording media for recording said information packet provided said EMI code is of said second mode and wherein said EMI code of said information packet is
25 altered to said first mode by said sink device upon recording onto said recording media.

10. A system as described in Claim 8 wherein said common decryption circuit of said sink device is also for decrypting said data of said information packet using said first key in response to said extractor circuit indicating that said EMI code is of said first mode.

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11. A system as described in Claim 10 wherein said communication interface is a serial communication interface conforming to the IEEE 1394 communication standard and wherein said information packet is a digital information packet.

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12. A system as described in Claim 10 wherein said source device is a broadcast receiver device and further comprises a receiver circuit for receiving an information packet encoded with CCI information and extracting a copy protection code therefrom and wherein said sink device is unable to process an information packet encoded with CCI information.

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13. A system as described in Claim 10 wherein said information packet represents a portion of a digital audio/visual program.

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14. A system as described in Claim 10 wherein said source device and said sink device each comprise:

a first hash circuit for generating said first key based on a common key;

and

a second hash circuit for generating said second key based on said

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common key and wherein said common key is transferred between said sink device and said source device before said information packet is received by said sink device.

15. A method of transferring information that contains copy protection modes comprising the steps of:

5 a source device receiving an information packet having a copy protection mode;

said source device storing an encryption mode indicator (EMI) code into a header of said information packet depending on said copy protection mode;

said source device using a first encryption mechanism to encrypt data of said information packet if said EMI code is of a first mode;

10 said source device using a second encryption mechanism to encrypt said data of said information packet if said EMI code is of a second mode;

said source device not encrypting said data of said information packet if said EMI code is of a third mode; and

15 said source device transmitting said information packet to a sink device wherein said first mode is a copy prohibition mode indicating that said information packet is not to be reproduced by said sink device, said second mode is a copy once inhibition mode indicating that said information packet is not to be reproduced more than once by said sink device and said third mode is an unrestricted mode indicating that said information packet can be freely
20 reproduced by said sink device.

16. A method as described in Claim 15 further comprising the steps of:

said sink device receiving said information packet and extracting said EMI code therefrom;

25 said sink device decrypting said data of said information packet using a first decryption mechanism if said EMI code is of said first mode;

said sink device decrypting said data of said information packet using a second decryption mechanism if said EMI code is of said second mode; and

said sink device not decrypting said data of said information packet if said EMI code is of said third mode.

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17. A method as described in Claim 16 further comprising the step of:
said sink device changing said EMI code from said second mode to said first mode and storing the new EMI code into said information packet; and
said sink device recording said information packet.

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18. A method as described in Claim 16 wherein said step of said source device receiving an information packet having a copy protection mode includes the step of said source device translating said information packet having encoded CCI information to extract said copy protection mode.

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19. A method as described in Claim 16 wherein said information packet is a digital representation of a portion of an audio/visual program.

20. A method as described in Claim 16 wherein said source device is a broadcast receiver device and wherein said sink device is a bit stream recorder.